

REMARKS

Claims 1-20 have been examined. Claims 1-11 and 13-19 have been rejected under 35 U.S.C. § 103(a). Also, the Examiner has indicated that claims 12 and 20 are allowed.

I. Rejection under 35 U.S.C. § 103(a) as being unpatentable over EP 0827838 to Kitahara et al. (“Kitahara”) in view of U.S. Patent No. 5,363,134 to Barbehenn et al. (“Barbehenn”) and JP 11058704 to Takahiro et al. (“Takahiro”).

Claims 1-10 and 13-19 have been rejected under 35 U.S.C. § 103(a) as being obvious over Kitahara in view of Barbehenn and Takahiro (which was cited in the January 2, 2004, Information Disclosure Statement).

A. Claim 1

Applicant submits that claim 1 is patentable over the cited references. For example, claim 1 recites that at least one drive signal from the plurality of serial drive signals is selected to adjust a displacement behavior of a piezoelectric vibrator associated with the identified nozzle orifice, based on the associated correction data.

The Examiner acknowledges that Kitahara and Barbehenn fail to disclose the above feature, but contends that Takahiro does (pgs. 3 and 4 of Office Action). However, in Takahiro, the drive voltage value of the drive voltage waveform is controlled (adjusted) based on the variation correction data of the ink ejection amount. The reference fails to teach or suggest that at least one drive signal is selected based on the variation correction data (i.e. the control or “adjustment” of a drive voltage waveform fails to disclose the actual “selection” of a drive

signal). Particularly, as shown in Fig. 1 of Takahiro, the correction means 11-1 ~ 11-N adjust the drive voltage values of the drive voltage waveforms that have already been selected by the selectors 3-1 ~ 3-N. Therefore, the selectors 3-1 ~ 3-N do not select the drive voltage waveforms based on the variation correction data (i.e. see configuration of head driving device, Fig. 1).

Further, as set forth above, claim 1 recites that at least one drive signal from the plurality of “serial” drive signals is selected....based on the associated correction data.

As shown in Figs. 11 and 13 of Takahiro, the plurality of drive voltage waveform generation means 2-1 ~ 2-N respectively generate different waveform signals (a), (b) and (c). The first selectors 3-1 ~ 3-N select one waveform signal from among the waveform signals (a), (b) and (c). However, the different waveform signals (a), (b) and (c) are respectively separately generated from the drive voltage waveform generation means 2-1 ~ 2-N (same for signals (d), (e) and (f) which are generated by the second drive voltage waveform generation means 43-1 ~ 43-J). Therefore, the different waveform signals (a), (b) and (c) of Takahiro do not disclose the claimed serial drive signals recited in claim 1.

In view of the above, Applicant submits that Takahiro fails to cure the deficient teachings of Kitahara and Barbehenn. Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection.

B. Claims 2, 13 and 16

Since claims 2, 13 and 16 are dependent upon claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency.

C. Claims 3, 6 and 8

Since claims 3, 6 and 8 contain features that are analogous to the features recited in claim 1, Applicant submits that claims 3, 6 and 8 are patentable over the cited references for at least analogous reasons as presented above.

D. Claims 4, 5, 7, 9, 10, 14, 15 and 17-19

Since claims 4, 5, 7, 9, 10, 14, 15 and 17-19 are dependent upon one of claims 3, 6 or 8, Applicant submits that such claims are patentable at least by virtue of their dependency.

II. Rejection under 35 U.S.C. § 103(a) over Kitahara in view of Barbehenn and Takahiro as applied to claim 8 and further in view of U.S. Patent No. 4,421,786 to Bain (“Bain”).

Since claim 11 is dependent upon claim 8, and Bain fails to cure the deficient teachings of Kitahara, Barbehenn and Takahiro, in regard to claim 8, Applicant submits that claim 11 is patentable at least by virtue of its dependency.

III. Allowable Subject Matter

As noted above, the Examiner has indicated that claims 12 and 20 are allowed.

Amendment under 37 C.F.R. § 1.116
U.S. Application No. 09/816,770

IV. Newly Added Claims

Applicant has added claims 21-28 to provide more varied protection of the present invention.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


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